

BILAYER WAFER-LEVEL UNDERFILL**ABSTRACT OF THE DISCLOSURE**

- 5 Methods for fabricating microelectronic interconnection structures as well as the structures formed by the methods are disclosed which improve the manufacturing throughput for assembling flip chip semiconductor devices. The use of a bilayer of polymeric materials applied on the wafer prior to dicing eliminates the need for dispensing and curing underfill for each semiconductor at the package level, thereby improving manufacturing throughput and reducing cost.

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